

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

LOWREN DOW,

Plaintiff,

Case Number 09-13697-BC

v.

RHEEM MANUFACTURING COMPANY,
ROBERTSHAW CONTROLS COMPANY,
INVENSYS CONTROL SYSTEMS,

Defendants,

/

MICHIGAN FARM BUREAU GENERAL
INSURANCE,

Plaintiff,

Case Number 10-10753-BC
Honorable Thomas L. Ludington

RHEEM MANUFACTURING COMPANY,
ROBERTSHAW CONTROLS COMPANY,
INVENSYS CONTROL SYSTEMS,

Defendants.

/

LOWREN DOW,

Plaintiff,

Case Number 11-10647-BC
Honorable Thomas L. Ludington

RHEEM MANUFACTURING COMPANY,
ROBERTSHAW CONTROLS COMPANY,
INVENSYS CONTROL SYSTEMS,

Defendants,

/

**OPINION AND ORDER GRANTING DEFENDANTS' MOTION TO EXCLUDE THE
TESTIMONY OF PLAINTIFF'S EXPERT ALAN KASNER AND WILLIAM
WOEHRLE, GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT,**

**GRANTING RHEEM'S MOTION FOR PARTIAL SUMMARY JUDGMENT,
DISMISSING DOW'S CLAIMS IN HIS SECOND ACTION WITH PREJUDICE,
DENYING OTHER MOTIONS AS MOOT, AND DISMISSING CASES WITH
PREJUDICE**

On September 17, 2009, Plaintiff Lowren Dow (“Dow”) filed a complaint (09-13697 ECF. No. 1) invoking the Court’s diversity jurisdiction, alleging claims based on products liability, negligence, gross negligence, willful disregard, and breach of implied and expressed warranties against Defendants Rheem Manufacturing Company (“Rheem”), Robertshaw Controls Company (“Robertshaw”) and Invensys Control Systems (“Invensys Controls”) (collectively, “Defendants”).¹ Dow’s claims arise from an explosion that occurred on July 16, 2007, as a result of an alleged faulty water heater that he also alleges was designed, manufactured, sold, and supplied by Rheem, and equipped with a control valve manufactured by Robertshaw. Dow alleges that the control valve had a defective pilot safety, which is intended to shut off gas to the main burner of the unit if the pilot is extinguished. When Dow attempted to light the pilot, the residence exploded, causing burns over 98% of his body.

On February 23, 2010, approximately five months after Dow filed his complaint, Michigan Farm Bureau General Insurance (“Michigan Farm Bureau”) filed a complaint (10-10753 ECF No. 1) against the same Defendants alleging similar claims. In contrast to Dow’s personal injury action, however, Michigan Farm Bureau’s subrogation action is brought to recover for property damage on behalf of its insured, William Harmon, Dow’s grandfather, who was the owner of the residence where the water heater exploded. Michigan Farm Bureau seeks to recover \$133,674.65.

¹ Robertshaw filed an answer on behalf of itself and Invensys Controls. ECF No. 7. Robertshaw asserts that Invensys Controls is not a corporate entity but an assumed name under which Robertshaw has done business. This issue has not yet been resolved. *See also* ECF No. 9. (noting that non-defendant Invensys PLC is a parent company to Robertshaw).

On July 20, 2010, the Court granted in part Defendants' motion to consolidate and consolidated the cases through resolution of dispositive motions. On June 21, 2010, Plaintiffs filed a motion to compel production of valves for testing and examination. Plaintiffs sought to compel the production of the Robertshaw valve that allegedly caused the explosion in this case (the "*Dow* valve"), and a valve referred to as "the *Bispo* valve" that allegedly caused an explosion that is the subject of litigation in federal court in Oregon. In response, Defendants asserted that the *Dow* valve has continually been available to Plaintiffs, but they opposed Plaintiffs' proposed "destructive" testing of both valves and expressed concerns regarding whether the discovery in this case could be used in the *Bispo* case.

Between October 4, 2010 and December 27, 2010, twenty-eight motions were filed in case number 09-13697 and thirteen motions were filed in case number 10-10753. The Court requested that the parties meet and confer to consensually address as many pretrial issues as possible, and further requested that both sides communicate any unresolved issues to the Court. Counsel for both parties subsequently informed the Court that they were unable to resolve any pending issues.

A hearing was held on June 3, 2011, and the parties' addressed Robertshaw's motion to exclude the testimony of Plaintiffs' designated experts William Woehrle (09-13697 ECF No. 137; 10-10753 ECF No. 41), Alan Kasner (09-13697 ECF No. 139; 10-10753 ECF No. 38), and Timothy Dunn (09-13697 ECF No. 114; 10-10753 ECF No. 30), Robertshaw's motion to strike the expert reports of Gary Koch, William Woehrle, and Timothy Dunn (09-13697 ECF No. 83; 10-10753 ECF No. 23), Rheem's motion for partial summary judgment (09-13697 ECF No. 117; 10-10753 ECF No. 33), and Robertshaw's motion for summary judgment (09-13697 ECF No. 139; 10-10753 ECF No. 43). For the reasons provided herein, Robertshaw's motions to exclude the testimony of Alan

Kasner and William Woehrle will be granted, Rheem's motion for partial summary judgment will be granted, Robertshaw's motion for summary judgment will be granted in part and denied as moot in part, and the remaining pending motions will be denied as moot.

I. Facts

Dow rented the single-family residence at 2020 Cat Lake Road in Mayville, Michigan from his grandfather, William Harmon. Dow's girlfriend, Stephanie Brooks, lived at the residence as well. The homeowner's insurance policy identified Harmon as the insured.

The water heater at issue in this case was located in the basement of the residence. Harmon purchased the water heater on April 7, 2006 at Self Serve Lumber in Caro, Michigan. The water heater was a 40 gallon 34,000 BTU Richmond Integra propane fired water heater bearing Model No: 6G40-34PF and Serial No: RMLP10055-11946 and having a date code identifying it as manufactured in Mexico sometime in the month of October, 2005. The water heater was designed, manufactured, sold and supplied by Rheem and was originally equipped with a Robertshaw control valve Model No: 220RLPTSPC, bearing a manufacturing date code of 05-40 made sometime between October 9 and October 14, 2005 in Mexico for use in water heaters. On August 7, 2006, Rheem supplied Harmon with a replacement water heater control valve to replace the original control valve which was allegedly not working. The replacement control valve was a Robertshaw Model No: 220RLPTSP-C, made in Mexico, and bearing a manufacturing date code of 06-28 meaning that it was manufactured sometime between July 9th and July 15, 2006.

Dow arrived home after work on July 16, 2007 and noticed that he was unable to get hot water in the shower. He went to the basement to light the pilot light of the water heater which had extinguished. Upon attempting to light the pilot light, there was an explosion causing significant

personal injury to Dow and damage to the residence.

When the explosion occurred on July 16, 2007, the sight glass covering the water heater's pilot light had been broken out. Defendants contend that the sight glass was broken in order for someone to use a butane lighter rather than the piezoelectric igniter attached to the gas control valve. The water heater had previously been connected to a large propane tank, but had been connected to a smaller tank in the yard as of the day of the explosion. The electric ignitor provided for igniting the pilot light was also not attached, but there was no physical evidence demonstrating that it became detached as a result of the explosion. Plaintiffs have not clarified certain facts of the case, which include who installed the water heater, who resided at the house, who called Rheem's customer service to inquire as to a replacement valve, how the water heater pilot light was re-lit, or which propane tank the water heater was connected to prior to the explosion.

II. The Control Valve

The Robertshaw control valve at issue incorporates a spring loaded "safety magnet" located in the inlet chamber that is designed to stop the flow of gas in the event of a pilot outage. When the pilot is extinguished, the charge to an electromagnet is interrupted and the safety magnet closes. In the closed position, a nitrile rubber "seal" or "gasket" on the end of the safety magnet closes against an inlet opening, stopping the flow of gas through the opening. The rubber gasket is attached to the safety magnet with a metal retainer button. The outer diameter of the retainer button is greater than the inner diameter of the rubber gasket. The rubber gasket stretches over the retainer button and fits into a groove beneath it. In order for the gasket to dislodge during use, it would be necessary to apply a force to it that is greater than the retaining force created by the button. In the instant case there was a leak in the Robertshaw gas control valve that occurred as a result of the rubber gasket

dislodging from the safety magnet and lodging in the inlet opening, preventing the safety magnet from closing the inlet when there was a pilot outage. The contested issue at this juncture is whether there was a design or manufacturing defect that caused the rubber gasket to dislodge from the safety magnet or whether over-pressurization of the gas due to misuse of the gas regulator caused the rubber gasket to dislodge.

III. Summary of Pending Motions

There are currently thirty motions pending in *Dow v. Rheem et al.* and twelve motions in *Michigan Farm Bureau Insurance v. Rheem et al.* Robertshaw has filed five motions challenging Plaintiffs' experts' reports and testimony (09-13697 ECF Nos. 83, 121, 134, 137, 206; 10-10753 ECF Nos. 23, 36, 38, 41), one motion to dismiss (09-13697 ECF No. 132; 10-10753 ECF No. 37) and one motion for summary judgment (09-13697 ECF No. 139; 10-10753 ECF No. 43). Rheem has filed three motions challenging Plaintiffs' experts' reports and testimony (09-13697 ECF Nos. 87, 114, 115; 10-10753 ECF Nos. 24, 30, 31) and one motion for summary judgment (09-13697 ECF No. 117; 10-10753 ECF No. 33). Dow has filed five motions challenging Defendants' experts (09-13697 ECF Nos. 85, 122, 123, 124, 133) and seven motions for summary judgment (09-13697 ECF Nos. 125, 126, 127, 128, 129, 130, 131). The remaining pending motions are requests for leave to file multiple motions (09-13697 ECF No. 120), for leave to file joinder (09-13697 ECF No. 141), to allow filing of a late response (09-13697 ECF No. 173), to strike a reply brief (09-13697 ECF No. 179), for leave to file excess pages (09-13697 ECF Nos. 180, 190) and for leave to file supplemental briefing (09-13697 ECF No. 205; 10-10753 ECF No. 63). This opinion and order focuses on Robertshaw's motion to exclude the testimony of Alan Kasner (09-13697 ECF No. 134) and William Woehrle (09-13697 ECF No. 137), Robertshaw's motion for summary judgment (09-13697

ECF No. 139) and Rheem's motion for partial summary judgment (09-13697 ECF No. 117).²

IV. Discussion

A. Robertshaw's Motion to Exclude the Testimony of Alan Kasner

1. Dr. Kasner's Opinion

Dr. Kasner has offered his opinion that the *Dow* valve developed a leak because the sealing gasket in the magnetic safety assembly jammed between the safety magnet assembly plunger and the body of the valve. Dr. Kasner contends that this failure was foreseeable, since gasket adhesion to mating surfaces is a known phenomenon. More specifically, he contends that the specifications for the gasket were inadequate given significant variations in nitrile polymer chemical structure, rubber formulation, and consequent part performance. The presence of three different formulations of gasket rubber and the discrepancy of the parts with the drawings provided demonstrated, in Dr. Kasner's opinion, that managerial control over the lower tier Orkli supplier by Robertshaw was inadequate. Dr. Kasner concluded that the Robertshaw control valve was defective because the manner in which the sealing gasket attached to the plunger of the magnet assembly. He further opined that the deficiency of the magnet assembly was a direct cause of the failure of the Robertshaw control valve, since gasket detachment allowed propane gas to leak out, accumulate in the absence of a burning pilot light, and cause an explosion upon ignition. Dr. Kasner concluded that the pre-1994 design of Robertshaw's magnet assembly, which incorporated crimping of the gasket in the safety magnet assembly plunger, is superior and would have prevented valve failure

² Rheem has filed a notice of joinder in Robertshaw's motions to exclude the testimony of Alan Kasner (09-13697 ECF. No. 134; 10-10753 ECF No. 40) and William Woehrle (09-13697 ECF No. 138; 10-10753 ECF No. 42), as well requested leave to file a notice of joinder in Robertshaw's motion for summary judgment (09-13697 ECF. No. 141; 10-10753 ECF No. 45).

and the occurrence of the accident in this case.

2. Dr. Kasner's Deposition

At his deposition, Dr. Kasner conceded that he had not done any testing or analysis to measure the degree of adhesion between the rubber gasket and the metal seat or whether the adhesion, if any existed, was sufficient to dislodge the gasket. ECF No. 134 Ex. 4 at 14-15, 40. Dr. Kasner asserted that any testing done in this regard would be meaningless because one could not duplicate the exact conditions because there are too many unknown variables to permit such testing, including temperature, duration of contact between the gasket and seat, the formulation of the nitrile rubber, the roughness of the metal comprising the seat, as well as other variables. *Id.* at 38.

Dr. Kasner instead relied on a known phenomena that he suggested could be tested according to an ASTM test method as the basis for his opinion that the rubber gasket may adhere to the metal seat. ECF No. 134 Ex. 5 at 17, 20; Ex. 4 at 16, 38-39. Dr. Kasner did not, however, perform the standardized ASTM test for adhesion of gasket materials to metal surfaces. ECF No. 134 Ex. 4 at 75-77. Moreover, in order for the rubber gasket to be dislodged by adhesion to the seat, the adhesion force acting on the top surface of the rubber gasket would have to overcome not only the retention force of the button retainer, but also the corresponding adhesion forces acting on the bottom of the rubber gasket which would resist dislodgement. *Id.* at 22. Dr. Kasner did not quantify the adhesion force on the back of the rubber gasket that would resist dislodgement. *Id.* at 19-21.

Dr. Kasner also contends that the molybdenum coating on the rubber gasket would tend to reduce the adhesion between the rubber gasket and the backing flange that would resist dislodgement. *Id.* There was also observable molybdenum present on the top surface of the gasket that contacted the seat. Dr. Kasner did some surface testing of the back of the rubber gasket, but did

not do any quantitative testing on the critical top surface. *Id.* at 22. He instead surmised that the molybdenum was rubbed off to some degree by contact with the seat based on his visual approximation. *Id.* (noting that he would not want to call his visual observations an “estimate”). At his deposition, Dr. Kasner conceded that there was no physical evidence demonstrating that the rubber gasket stuck to the seat. *Id.* at 39-40

3. Legal Standard

Determinations on the admissibility of expert witness testimony are made pursuant to Federal Rule of Evidence 702, *Daubert v. Merrell Dow Pharmas., Inc.*, 509 U.S. 579 (1993), and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). In *Daubert*, the Supreme Court held that scientific evidence proffered by an expert must be “relevant to the task at hand” and must rest “on a reliable foundation.” *Daubert*, 509 U.S. at 597; *see also Surles v. Greyhound Lines, Inc.*, 474 F.3d 288, 294 (6th Cir. 2007) (interpreting *Daubert*). The Supreme Court subsequently affirmed in *Kumho Tire* that *Daubert*’s principles apply more generally to all expert testimony admissible under Rule 702. *Kumho Tire*, 526 U.S. at 148; *see also Surles*, 474 F.2d at 294 (interpreting *Kumho Tire*). The principles outlined in *Daubert* and *Kumho Tire* have since been incorporated into Rule 702, which now permits qualified experts to offer expert opinions where (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case. Fed. R. Evid. 702; *see also Surles*, 474 F.3d at 294-95 (interpreting Fed. R. Evid. 702).

“ ‘In short, under *Daubert* and its progeny, a party proffering expert testimony must show by a “preponderance of proof” that the expert whose testimony is being offered is qualified and will testify to scientific knowledge that will assist the trier of fact in understanding and disposing of

relevant issues.” *Sigler v. Am. Honda Motor Co.*, 532 F.3d 469, 478 (6th Cir. 2008) (quoting *Pride v. BIC Corp.*, 218 F.3d 566, 578 (6th Cir. 2000)). Thus, district courts play the role of “gatekeeper” whereby they must evaluate the relevance and reliability of proffered expert testimony with “heightened care.” *Surles*, 474 F.3d at 295.

Federal Rule of Evidence 702 governs expert testimony based on “scientific, technical, or other specialized knowledge.” Fed. R. Evid. 702. As the Supreme Court in *Daubert* noted, Rule 702 establishes a standard of “evidentiary reliability” or “trustworthiness.” *Daubert*, 509 U.S. at 590 n.9. District courts, therefore, must determine whether “the principles and methodology underlying the [proffered expert’s] testimony itself are valid.” *Pride*, 218 F.3d at 577. This reliability inquiry focuses “solely on the principles and methodology, not on the conclusions they generate.” *Daubert*, 509 U.S. at 594-95.

Expert testimony may not be based on mere speculation, *McLean v. 988011 Ontario, Ltd.*, 224 F.3d 797, 800-01 (6th Cir. 2000), and assumptions must be supported by evidence in the record. See *Sigler*, 532 F.3d at 481-82; see also *Rose v. Truck Ctrs., Inc.*, No. 09-3597, 2010 U.S. App. LEXIS 16396, at *17 (6th Cir. Aug. 6, 2010). Indeed, an expert’s conclusions regarding causation must have an established factual basis and cannot be premised on mere supposition. *McLean*, 224 F.3d at 801.

Several factors are to be considered in determining whether a proffered expert’s testimony is reliable: (1) the testability of the expert’s hypotheses, (2) whether the expert’s methodology has been subjected to peer review and publication, (3) the known or potential rate of error with respect to the expert’s methodology, and (4) whether the methodology is generally accepted in the scientific community. *Daubert*, 509 U.S. at 593-94. “[C]ourts interpreting *Daubert* have considered testability

of the expert's theory to be the most important of the four factors, and this is especially true in cases involving allegations of defect in product design, as opposed to cases involving medical and pure scientific theories, which will be subjected to rigorous peer review." *Berry v. Crown Equip. Corp.*, 108 F. Supp. 2d 743,754 (E.D. Mich. 2000). Thus, where "the proffered expert has performed no reliable testing of his theory, courts, including the Sixth Circuit, have routinely precluded the witness from offering an expert opinion." *Id.*

4. Dr. Kasner's Foundation for His Primary Opinion Regarding Causation

Dr. Kasner's primary opinion is that the rubber gasket was dislodged as a result of adhering to the seat. Robertshaw does not challenge the foundation of Dr. Kasner's opinion based on his credentials in the fields of material and polymer science, but instead contends that his opinion should be excluded because it is not based on "scientific knowledge," and will not assist the trier of fact in understanding and addressing the relevant issues.

As previously noted, Dr. Kasner conceded at his deposition that there is no physical evidence that the rubber gasket stuck to the metal seat. In the absence of such physical evidence, Dr. Kasner must have some other basis to support his opinion in order for it to be admissible. *See, e.g., Triton Energy Corp. v. Square D Co.*, 68 F.3d 1216, 1221-22 (9th Cir. 1995) (holding in a design defect product liability suit that plaintiff's expert opinion could not defeat summary judgment because it was not reliable in the absence of physical evidence supporting the alleged defect theory); *Dan's Hydraulics, Inc., v. Colony Ins. Co.*, 417 F. Supp. 2d 601,610 (D. Del. 2006) (While experts do not have to eliminate "all possible causes" of the plaintiffs injury, speculative expert opinions "based upon no physical evidence and no testing" are not admissible); *cf. Glanzman v. Uniroyal, Inc.*, 892 F.2d 58, 60-61 (9th Cir. 1989) (upholding verdict based on expert opinion that had basis in the

evidence). Robertshaw emphasizes that Dr. Kasner has not, and cannot, identify any documented instance of a rubber gasket sticking to an inlet seat in any gas control valve, let alone such an occurrence with a Robertshaw control valve. He likewise has not identified any literature suggesting that such an incident has, or could have, occurred.

More importantly, Dr. Kasner has not conducted any testing, demonstration or analysis to demonstrate that “adhesion” occurred in this case, the magnitude of such adhesion, or that it caused the rubber gasket to dislodge. Indeed, Dr. Kasner repeatedly concedes that it is impossible to measure these forces because there are too many unknown variables that affect how much adhesion takes place. ECF No. 134 Ex. 4 at 14-15. Robertshaw asserts that Dr. Kasner has not employed any methodology in reaching his opinion, let alone employed a reliable methodology. More specifically, Robertshaw notes that Dr. Kasner did not conduct any testing or analysis to determine whether the rubber gasket in a Robertshaw valve could stick to the metal seat under any circumstance nor did he determine that the magnitude of any gasket adhesion would be greater than the button retention force resisting gasket dislodgement. ECF No. 134 Ex. 4 at 19-21. Dr. Kasner cannot articulate the range of such forces as he has not conducted the standardized test for adhesion that he identified in his report. ECF No. 134 Ex. 4 at 75.

Robertshaw characterizes Dr. Kasner’s opinions as assumptions and speculative suppositions upon which he concluded that because adhesion of rubber to metal *can* occur as a general phenomenon, that it *did* occur in this case. Robertshaw asserts that this conclusions is premised on a series of unwarranted assumptions that remain unproven by any testing done by Dr. Kasner, the testing done by others, or the relevant literature in the field. Dr. Kasner’s opinion, therefore, is an impermissible *ipse dixit*, unconnected to existing facts and circumstances of this case. *See Gen. Elec.*

Co. v. Joiner, 522 U.S. 136, 146 (1997) (“[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the ipse dixit of the expert.”); *see also Meemic Ins. Co. v. Hewlett-Packard Co.*, No. 09-10155, 2010 U.S. Dist. LEXIS 46990, at *22 (E.D. Mich. May 13, 2010) (An expert’s “conclusions must be connected to the existing data by more than the ipse dixit of the expert.”).

It is well-established that an expert must utilize in the courtroom the “same level of intellectual rigor that characterizes the practice of an expert in the relevant field,” *Best v. Lowe’s Home Ctrs., Inc.*, 563 F.3d 171, 177 (6th Cir. 2009), and Robertshaw contends that the methods and principles used by Dr. Kasner in developing his gasket adhesion and dislodgement theory fall well short of the rigor demanded in the field. *See, e.g., Childs v. Gen. Motors Corp.*, No. 95-0331, 1998 U.S. Dist. LEXIS 10991 at *9, 11-12 (E.D. Pa. July 22, 1998) (finding an expert’s testimony inadmissible in a design defect product liability suit because there was “no physical evidence” of the alleged design failure, the expert could not “replicate by experiment his theory of design defect,” and the expert had relied only on “general metallurgical principles” and “basic laws of physics”).

Plaintiffs, however, respond by noting that it is undisputed that the leak in the Robertshaw control valve was caused by the separation of the rubber seal from the safety magnet causing a propane gas leak to occur when the safety magnet closed upon the weakening of the force of the magnet from the electrical thermocouple. Plaintiffs submit that there are only two potential causes for this condition to occur: (1) overpressurization causing gasket removal or (2) dislodgment of the gasket because it has insufficient strength to resist the forces necessary to cause removal due to its design and manufacture. Dr. Kasner did not perform his own testing to determine whether overpressurization occurred, but relied upon the testing conducted by Dunn. Dunn determined that

80 psi pressure was unable to cause removal or dislodgement of the rubber seal and that the propane pressure delivered to the *Dow* water heater control valve's piping system was measured at no more than merely 1/3 psi. Dunn concluded that, based on this testing, overpressurization had not occurred. There was also no evidence of overpressurization occurring prior to the explosion that occurred on July 16, 2007.

Dr. Kasner then determined that it took anywhere from 1.8 to 3 ounces of force to create displacement of the rubber seal. ECF No. 50 Ex. 1. The precise cause of displacement for any individual defective control valve unit would be a function of various individual factors, as discussed above. Plaintiffs emphasize that neither of Robertshaw's experts have conducted any testing that would "rule in" overpressurization as a cause of this rubber seal's displacement to contradict Dunn's "ruling out" of overpressurization as the cause of the displacement and Robertshaw's experts have not "ruled out" insufficient strength of the seal as the cause in this circumstance. Plaintiffs contend that this is an appropriate basis for an expert opinion pursuant to *Best v. Lowe's Home Centers, Inc.* 563 F.3d 171 (6th Cir. 2009) (recognizes differential diagnosis, a method by which a physician determines what disease process caused a patient's symptoms by considering all relevant potential causes of the symptoms and then eliminates alternative causes based on a physical examination, clinical tests, and a thorough case history, as "an appropriate method for making a determination of causation for an individual instance of disease"). Plaintiffs also note that Robertshaw would not allow destructive testing on the control valve at issue in this case, and the fact that Dr. Kasner did not conduct testing on that precise valve should not be considered.

Plaintiffs also submit that Dr. Kasner's methodology is the product of reliable principles and

methods. Dr. Kasner compared the *Dow* control valve with the *Bispo* and *Poirier* valves, as well as with other Robertshaw control valves made twenty-five to fifty years ago. Based on this comparison, Dr. Kasner concluded that the *Bispo*, *Poirier* and the control valve at issue in the instant case all failed because of nitrile rubber seal displacement.

Plaintiffs explain that in coming to his conclusions, Dr. Kasner compared the dimension and weight of the rubber seals for the *Bispo*, *Poirier* and *Dow* valves along with exemplar valves and those designed and manufactured prior to the present design. Shore-A hardness measurements of the gaskets were then conducted. Microscopic examination of the rubber seals was then conducted which revealed contact imprints caused by the plunger tip spring load imparted against the sharp edge of the metal seat showing permanent deformation. The examination revealed that the “sharp notch” imparted from the seat on to the rubber seal wore through the lubricant coating exposing the darker rubber underneath. A comparative analysis was conducted between the *Dow* valve seal and the *Poirier* valve seal, and the *Poirier* valve reflected that it had not been exposed to any pressure over 1/3 psi as well. The seal’s contact with the seat was similar with both the *Dow* and *Poirier* seals. Dr. Kasner then requested a Fourier Transform Infrared Spectroscopy (FTIR) to identify the base rubber material of the seal, which determined that the *Dow* rubber seal was nitrile rubber with chemical composition similar, but not identical, to that of *Poirier* and a 1994 exemplar control valve seal. The *Bispo* seal was determined to be a different composition. Non-destructive Attenuated Total Reflectance (ATR) sampling was then performed at the request of Kasner on the *Dow*, *Poirier*, *Bispo* and 1994 exemplar gasket. All testing was conducted pursuant to standardized testing ASTM D-3677 and determined the different formulations of the seals.

Dr. Kasner also performed testing at his own facilities involving exemplar units, during

which he determined that the nominal spring force of the safety magnet contacting the rubber seal against the metal seat was between 0.91 lb force to 0.96 force lb force. Without the sharpness of the magnet seat's dimensions, which would increase psi, the nominal compressive stress was 17.4 to 18.3 psi. Based upon ASTM F607, "Standard Test Method For Adhesion of Gasket Materials To Metal Surfaces," his methodology, and experience, Dr. Kasner concluded that the contact force penetrating the molybdenum disulfide lubricant was sufficient to overcome the 1.8 ounce force necessary to unseat the seal. In other words, he was satisfied that it had been proven that overpressurization could not have occurred to cause this removal, and that the alternate theory of removal or displacement must be implicated.

Robertshaw replies that Plaintiffs do not address the fact the Dr. Kasner did not conduct any testing to demonstrate that the rubber seat could stick and become dislodged, did not identify any documented instance of such an occurrence in any gas control valve, and did not address the fact that Dr. Kasner has not identified any scientific literature suggesting that such sticking could or did occur. Plaintiffs instead submit that Dr. Kasner's opinion is that the rubber seat dislodged as a result of insufficient strength. Robertshaw argues that this is not the opinion that was articulated in his report or at his deposition. Because Plaintiffs' response does not address the deficiencies in Dr. Kasner's opinion that Robertshaw has identified, Robertshaw submits that Plaintiffs have conceded that Dr. Kasner's opinion as to causation is inadmissible. Indeed, Robertshaw notes that Plaintiffs' response admits that "[t]he precise cause of displacement for any individual defective control valve unit would be a function of various individual factors including the chemical makeup of the nitrile rubber seal, the amount of displacement of the lubricant, the size of the button intended to secure the rubber seal [and] the transference force imparted on the shaft." ECF No. 150 at 7. This affirms

Robertshaw's assertion that Dr. Kasner has not considered any of the relevant factors and has admitted that the unknown variables are too numerous to test his supposition. Robertshaw also emphasizes that both William Woehrle and Timothy Dunn defer to Dr. Kasner on the issue of causation, and thus Dr. Kasner is the only designated witness addressing the issue of causation.

Moreover, Robertshaw argues that Dr. Kasner's "ruling out" theory is insufficient to "rule in" his alternate theory of adhesion absent any evidence to support his theory. Dr. Kasner relies on Dunn's testing to rule out over-pressurization as the cause of the rubber gasket becoming dislodged but did not participate in the testing. Additionally, Dr. Kasner was unaware that Dunn testified in *Bispo* that, based on his testing, the rubber gasket dislodged as a result of over-pressurization. In particular, Dunn's testing did not indicate any adhesion of the rubber seal to the seat, and the non-comprehensive reports of testing by others do not provide a sufficient foundation for Dr. Kasner's opinion regarding adhesion. Plaintiffs' assertion that Dr. Kasner's theory would be supported by destructive testing that Robertshaw's engineering consultant would not agree to is similarly unavailing, according to Robertshaw, and demonstrates precisely why Dr. Kasner's testimony should not be permitted.

3. Conclusion

"[C]ourts interpreting *Daubert* have considered testability of the expert's theory to be the most important of the four factors, and this is especially true in cases involving allegations of defect in product design[.]" *Berry*, 108 F. Supp. 2d at 754. Thus, where, as here, "the proffered expert has performed no reliable testing of his theory, courts, including the Sixth Circuit, have routinely precluded the witness from offering an expert opinion." *Id.* (citing *Pride*, 218 F.3d at 581 (finding summary judgment in favor of the product liability defendant was proper where plaintiff's only

expert's theory was unsupported by reliable testing); *Smelser v. Norfolk S Ry. Co.*, 105 F.3d, 299, 304-05 (6th Cir. 1997) (concluding where plaintiff's expert failed to perform any testing on the alleged defective seatbelt, the expert's opinion should have been excluded); *Cook v. Am. SS Co.*, 53 F.3d 733,739 (6th Cir. 1995) (\$100,000 judgment in favor of plaintiff vacated where the district court permitted an expert qualified in testing and failure analysis to offer an opinion that a marine rope had failed from exposure to a torch, where the only "test" performed by the expert was to visually examine the frayed end of the alleged defective line with the naked eye and under a low power microscope); *Stanczyk v. Black & Decker, Inc.* 836 F. Supp. 565, 567 (N.D. Ill. 1993) (defendant's motion in limine to exclude expert testimony granted where plaintiffs' expert offered "no testable design to support his concept.")).

The fact that Dunn opines that he has "ruled out" one theory is insufficient to satisfy the expert witness reliability requirements for Dr. Kasner's testimony. *Best v. Lowe's Home Centers, Inc.*, 563 F.3d 171 (6th Cir. 2009), which addresses differential diagnosis in a medical expert context, does not provide adequate support that an expert may "rule in" one theory of causation where another expert has "ruled out" an alternative theory of causation. Dr. Kasner admittedly was unable to conduct any testing to verify that the gasket dislodged as a results of adhering to the seat and that Dunn was purportedly able to "rule out" overpressurization as the cause of the gasket dislodgment does not, in turn, provide an adequate foundation upon which Dr. Kasner's opinion may rest. Dr. Kasner's proposed testimony is not based upon sufficient facts or data, is not the product of reliable principles and methods, and is unsupported by reliable testing. Moreover, Dr. Kasner's testimony would not be helpful in determining the ultimate issue in this case. Accordingly, Dr. Kasner's primary opinion as to causation fails the expert witness reliability requirements under Rule

702, *Daubert*, and *Kumho Tire*, and will be excluded.

5. Dr. Kasner's Ancillary Opinions Regarding Alternative Designs

Dr. Kasner also offers an opinion regarding the sufficiency of the design of the safety magnet, in particular the attachment method for the rubber gasket, and he discussed alternative designs that might provide greater resistance to dislodgement. However, in the absence of any admissible opinion from Dr. Kasner regarding the adhesion forces that allegedly caused the rubber gasket to dislodge in the subject Dow valve, any opinion he might have regarding alternative designs is irrelevant. In other words, Dr. Kasner's design defect theory is dependent on his unproven assumption that adhesion can, and did, occur in the *Dow* valve such that the plunger assembly must be redesigned to overcome that adhesion. If adhesion did not occur, or cannot be proven, then Robertshaw contends that Dr. Kasner's design defect theory must fail, including his proposed alternative designs. Moreover, Robertshaw argues that Dr. Kasner lacks a proper foundation to support any conclusion that his proposed alternative designs are feasible or that they would have prevented the rubber gasket from dislodging in this case.

Dr. Kasner offers five ways to improve the safety magnet's design, labeling each proposed alternative design "safe, feasible and practical." Dr. Kasner did not conduct testing or otherwise demonstrate their purported safety, feasibility, or practicality. First, based on "simple mechanics," he suggests that Robertshaw should increase the size of the diameter of the retaining button from 0.421" to 0.472." 09-13697 ECF No. 139 Ex. #5 at 18; Ex. #4 at 98-99. Robertshaw emphasizes that Dr. Kasner, however, (1) has not tested a 0.472-inch button to quantify what difference, if any, a 0.051" increase would have, (2) admits that an increased button size is not the preferred approach, and (3) declines to suggest that a 0.472-inch button would have prevented the leak or explosion. 09-

13697 ECF No. 139 Ex. #4 at 42.

Second, Dr. Kasner suggests that Robertshaw should remove the bevel on the back side of the retaining button that is in contact with the rubber gasket, indicating that removing the bevel would reduce the likelihood of “gasket slip.” 09-13697 ECF No. 139 Ex. #5 at 18; Ex. #4 at 99, 180-81. He has not, however, performed any testing to prove his hypothesis, and he admits that the button bevel was not a primary cause but was, instead, just “a contributor.” 09-13697 ECF No. 139 Ex. #4 at 102.

Third, Dr. Kasner suggests that Robertshaw should increase the thickness of the rubber gasket from 0.0384-inch to “just under” 0.049-inch—the size of the gap between the retaining button and the backing flange—indicating that doing so “would make it more difficult for the gasket to be detached.” 09-13697 ECF No. 139 Ex. #5 at 7, 18. Dr. Kasner, relying solely on “basic mechanics,” offers this opinion without quantifying the effect, if any, that gasket thickness has on the force required to dislodge the gasket. 09-13697 ECF No. 139 Ex. #4 at 43. He concedes that, ultimately, the utility of the proposed increase of less than 0.0106-inch gasket thickness would be, at best, “[v]ery minimal[.]” 09-13697 ECF No. 139 Ex. #4 at 173.

Fourth, Dr. Kasner suggests that Robertshaw should use a permanent epoxy adhesive between the back surface of the gasket and the backing flange, indicating that a permanent adhesive would ensure retention of the gasket on the plunger “as long as the bond holds.” 09-13697 ECF No. 139 Ex. #5 at 18; Ex. #4 at 102-03. Robertshaw submits that it is not a profound concept that an adhesive works until its bond fails, and Dr. Kasner admits that such an epoxy adhesive could, in fact, fail. 09-13697 ECF No. 139 Ex. #4 at 103. Dr. Kasner does not test his permanent adhesive theory in any way or demonstrate that such an alternative would function properly in the valve or would

not be prone to other failure modes.

Finally, Dr. Kasner suggests that Robertshaw should crimp or swage³ the rubber gasket between the backing flange and the retaining button during assembly. 09-13697 ECF No. 139 Ex. #5 at 18. Identifying this design, one allegedly utilized in pre-1994 Robertshaw valves, as “the simplest and most reliable way of improving the design,” Dr. Kasner suggests that it would “h[o]ld the gasket securely, making it extremely resistant to removal.” 09-13697 ECF No. 139 Ex. #5 at 18. Dr. Kasner has not, however, done any testing or analysis of the pre-1994 allegedly “crimped” design. Additionally, although a lab assistant expressed some difficulty in removing the rubber gasket from a sixteen-year-old safety magnet, the gasket can be removed and, when removed, it is apparent that the older gas control valve is not crimped but has a similar design to the one at issue in this case. Even assuming crimping can be done, Dr. Kasner admits that crimping the gasket creates a local stress point but he does not address whether the local stress point would affect the function of the plunger other than to say, without any scientific support or actual testing, that he believes that a crimped gasket exposed to 100,000 cycles of loading “should pass the testing without problems.” 09-13697 ECF No. 139 Ex. #4 at 105-07. Further, Dr. Kasner cannot identify any gas control valve sold today containing a magnet assembly with a crimped rubber gasket. *Id.* at 107. Robertshaw construes this suggestion as Dr. Kasner effectively rendering defective every gas control valve presently on the market.

In sum, Robertshaw argues that Dr. Kasner’s opinions on proposed design alternatives are inadmissible due to their dependence for relevance on his unreliable adhesion theory. Additionally,

³The term “swage” is used interchangeably with the word “crimp” in the industry, according to Dr. Kasner. ECF No. 139 Ex. 4 at 105.

Robertshaw argues that the proposed alternative design opinions are themselves unreliable under 702 and *Daubert*, and, therefore, inadmissible because there is no physical evidence suggesting that any of the proposed alternatives would have prevented dislodgement of the rubber gasket. Dr. Kasner has done no testing or analysis to quantify in any way the effect of making the proposed changes in the design of the safety magnet, nor has he identified any relevant literature, or other scientific community opinion accepting of his opinion that the safety magnet's current design constitutes a design defect. His opinion that the current design is defective is based entirely on suppositions that have no basis in the established facts of the case. Further, Dr. Kasner does not address any potential limitations or problems that his proposed alternatives may present but instead assumes without any scientific support that the design is defective. Robertshaw believes that such an opinion cannot reliably inform the trier of fact in this case and requests that the Court exclude Dr. Kasner's ancillary opinion.

Plaintiffs argue that Dr. Kasner's testing was sufficient to support his suggestions for alternative designs. Semi-quantitative elemental analysis was conducted on an energy dispersive x-ray spectrometer (SEM-EDS). The testing determined the presence of molybdenum disulfide, a well-known dry lubricant used to prevent adhesion of rubber to metal surfaces, on the *Bispo*, *Poirier* and *Dow* gaskets but not the 1994 exemplar. The 1994 exemplar gasket revealed the presence of graphite, another well known dry lubricant used to prevent sticking of rubber to metal. Previous microscopic analysis, Plaintiffs emphasize, determined that the "sharp notch" of the metal seat cut through the lubrication on the *Dow* rubber seal.

Microscopic analysis conducted on September 23, 2010 at Stork Technimet in Wisconsin revealed sharp notches imparted to the rubber seal from the machining of the metal seat. A similar

notch was found imparted onto the *Poirier* rubber seal. An exemplar control valve revealed no sharp notch existing on the metal seat. In his deposition, Dr. Kasner introduced his opinion that the sharpness of the notch of the metal seat was an additional contributing factor to the seal removal. ECF No. 150 Ex. 2 at 137-38. He believed that the notch was a manufacturing defect because it was not observed in an exemplar control valve. He concluded that if there is a specification within the Robertshaw's prints and specifications requiring a flat contour to the seat as it is seen in the exemplar gasket, then the condition seen in the *Dow* valve is a manufacturing defect. Should Robertshaw have no specification for the contour of the metal seat, then he concluded that the condition is a design defect. Whether the condition is a design or manufacturing defect is dependent upon materials that have not yet been produced by Robertshaw but Dr. Kasner noted in his report that he could supplement the report once the appropriate information had been furnished by Robertshaw.

As noted above, Dr. Kasner's primary opinion regarding adhesion is inadmissible under Rule 702 and *Daubert*. Because his suggestions regarding feasible alternative designs are untested and unsubstantiated in addition to the fact that they rely on his opinion that the *Dow* valve was defective due to adhesion of the gasket to the seat of the control valve, his ancillary opinions will be excluded as well.

B. Robertshaw's Motion to Exclude the Testimony of William Woehrle

Robertshaw has also filed a motion to exclude the expert testimony of William Woehrle because Mr. Woehrle is not qualified to render expert opinions regarding the design and performance of the Dow control valve and lacks a proper foundation for his proffered opinion regarding the alleged failure mode of the valve. Mr. Woehrle obtained a Bachelor of Science degree

from Michigan State University in 1966, majoring in physics. He then spent twenty-five years at Uniroyal, working briefly as a development engineer before ascending into various management positions. Among other things, Mr. Woehrle oversaw Uniroyal's tire testing department. In 1992, Mr. Woehrle left Uniroyal and opened a company, Automotive Engineering Management Services, Inc., that was

engaged in automotive tire testing services on behalf of Ford, General Motors and other automotive manufactures. In 2005, Mr. Woehrle started his current business, Tire Forensic Investigations. Mr. Woehrle holds himself out as a tire expert, and apart from this case, his litigation consulting has been limited to cases involving alleged tire failures. ECF No. 137 Ex. 1 at 34. Mr. Woehrle has no experience in the design or performance of gas control valves or their component parts.

Robertshaw first challenges Woehrle's "design defect" opinion that the rubber gasket was dislodged as a result of adhering to the seat of the control valve and that the safety magnet design is defective. At the June 3, 2011 hearing, counsel for Plaintiffs stated that he would "not be asking any testimony of Mr. [Woehrle] with regard to the ultimate opinion of design defect causing this explosion." Hr'g Tr. at 46. Robertshaw's motion to exclude Woerhle's testimony pertaining to design defect will be, as a result, granted.⁴

C. Robertshaw's Motion for Summary Judgment

1. Standard of Review

A motion for summary judgment should be granted if the movant shows that "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law."

⁴Robertshaw also filed motions to strike the expert reports of Koch, Woehrle and Dunn. ECF Nos. 83, 87. These motions are now moot as a result of the Court's conclusions on the motions discussed in this opinion and order.

Fed. R. Civ. P. 56(a). A party asserting that a fact cannot be proven or is genuinely disputed must support the assertion by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(B). The party seeking summary judgment has the initial burden of informing the Court of the basis for its motion, and identifying where to look in the record for relevant facts “which it believes demonstrate the absence of a genuine issue of material fact.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The burden then shifts to the opposing party who must “set out specific facts showing a genuine issue for trial.” Fed. R. Civ. Pro. 56(e)(2); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986). If the opposing party fails to raise genuine issues of fact and the record indicates the moving party is entitled to judgment as a matter of law, the court shall grant summary judgment. *Anderson*, 477 U.S. at 250.

The court must view the evidence and draw all reasonable inferences in favor of the non-moving party and determine “whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law.” *Anderson*, 477 U.S. at 251-52. The party opposing the motion may not “rely on the hope that the trier of fact will disbelieve the movant’s denial of a disputed fact” but must make an affirmative showing with proper evidence in order to defeat the motion. *Street v. J.C. Bradford & Co.*, 886 F.2d 1472, 1479 (6th Cir. 1989). A party opposing a motion for summary judgment must designate specific facts in affidavits, depositions, or other factual material showing “evidence on which the jury could reasonably find for the plaintiff.” *Anderson*, 477 U.S. at 252. The application of Rule 56 extends to employment-related cases, and courts have granted summary judgment for employers in disability discrimination and retaliation cases. See e.g. *Walsh v. United Parcel Serv.*, 201 F.3d 718,

724 (6th Cir. 2000) (affirming summary judgment on a disability claim); *Canita v. Yellow Freight System, Inc.*, 903 F.2d 1064 (6th Cir. 1990) (affirming summary judgment on a retaliation claim).

2. Plaintiffs' Design Defect Theory

In order to prevail on their product liability negligence, express warranty, and implied warranty claims, Plaintiffs must prove “a causal connection” between their alleged defect theory and the resultant explosion. *Wendorf v. JLG Indus.*, 683 F. Supp. 2d 537,548 (E.D. Mich. 2010) (quoting *Skinner v. Square D Co.*, 445 Mich. 153, 159 (1994)). “[T]he burden to prove a defect and a causal connection to the injury always remains with the plaintiff. The defendant never has the burden to prove a non-defect.” *Sylvania v. Ford Motor Co.*, No. 275578,2008 Mich. App. LEXIS 2071, at *11 (Mich. Ct. App. Oct. 21, 2008). Robertshaw contends that Plaintiffs can offer no competent evidence that the rubber gasket adhered to the metal seat in fact or that it did so because it was defective and thus cannot establish the product liability claims.

While circumstantial evidence can establish causation if it facilitates reasonable inferences of causation, mere speculation or impermissible conjecture cannot. *Thompson v. Carrollton Twp. Police Dep’t*, Nos. 283772 & 283285, 2009 Mich. App. LEXIS 1252, at *18 (Mich. Ct. App. June 2, 2009) (citing *Skinner*, 445 Mich. at 163-64); *Kaminski v. Grand Trunk W. R.R. Co.*, 347 Mich. 417, 422 (1956). Therefore, a product liability causation theory “must have some basis in established fact.” *Skinner*, 445 Mich. at 164. “[A] basis in only slight evidence is not enough.” *Id.* Further, even if a causation theory is factually supported, the theory is insufficient if it is, “at best, just as possible as another theory.” *Id.* Thus, “the plaintiff must present substantial evidence from which a jury may conclude that more likely than not, but for the defendant’s conduct, the plaintiff’s injuries would not have occurred.” *Id.* at 164-65.

Plaintiffs must thus establish their theory that the rubber gasket dislodged from the plunger as a result of adhesion with substantial evidence. *Id.* at 164. Plaintiffs' only support for their defect theory comes from Dr. Kasner's anticipated testimony. As discussed above, Dr. Kasner's testimony will be excluded. Where actual evidence of a plaintiff's theory is "speculative," summary judgment should be entered in favor of the defendant. *See, e.g., Kenkel v. Stanley Works*, 256 Mich. App. 548, 561 (2003). When, as here, the analytical gap between the evidence and the inferences to be drawn on the ultimate issue is too wide, a jury should not be asked to speculate on the issue of causation. *Turpin v. Merrell Dow Pharms., Inc.*, 959 F.2d 1349, 1360-61 (6th Cir. 1992), cert. denied, 113 S.Ct. 84 (1992). In other words, where a plaintiff's theory is not sufficiently supported by evidence, the Court should "prohibit the case from proceeding to the jury" and enter summary judgment for the defendant. *Glaser v. Thompson Med. Co.*, 32 F.3d 969, 972 (6th Cir. 1994). Because Plaintiffs are unable to provide substantial evidence to establish their theory that the rubber gasket dislodged from the plunger as a result of adhesion and that it did so because it was defective, their products liability claims against Robertshaw and Rheem based on design defect will be dismissed.

3. Plaintiffs' Claims Under Michigan's Product Liability Law

Plaintiffs also allege state law claims against Robertshaw and Rheem under Mich. Comp. Laws § 600.2946(2). Because each of these claims is predicated on an allegation that a defect in either the design or manufacture of the gas control valve injured Plaintiffs, they are all "product liability actions" governed by Mich. Comp. Laws § 600.2945, et seq. *See Ryan v. Brunswick Corp.*, 454 Mich. 20, 27 n.8 (1997), *overruled on other grounds by Sprietsma v. Mercury Marine*, 537 U.S. 51 (2002) ("Products liability claims in Michigan are based on a single statute, MCL 600.2946[.]"); *Hershey v. Black & Decker*, No. 276572, 2008 Mich. App. LEXIS 1919, at *2 (Mich. Ct. App. Sept.

30,2008) (“MCL 600.2946(2), adopted in 1995, now governs product liability actions predicated on a ‘production’ defect.”); *Irrer v. Milacron, Inc.*, 484 F. Supp. 2d 677,687 (E.D. Mich. 2007) (“Michigan’s tort reform legislation ‘displaced the common law.’”) (quoting *Greene v. A.P. Prods., Ltd.*, 475 Mich. 502, 507-508 (2006); *Nordman v. OMGA S.p.A.*, No.1 :05-cv-30, 2006 U.S. Dist. LEXIS 70842, at *10-11 (W.D. Mich. Sept. 29, 2006); *Mut. Ins. Co. of Am. v. Royal Appliance Mfg. Co.*, 112 F. App’x 386,389 (6th Cir. 2004).

Pursuant to Michigan’s product liability statute, plaintiffs in product liability actions must demonstrate that the product is “defective.” *Prentis v. Yale Mfg. Co.*, 421 Mich. 670,683 (1985). To do so, they must establish that (1) the valve was “not reasonably safe” at the time it left Robertshaw’s control, and (2) a “practical and technically feasible alternative” was available that would have prevented the harm without (a) “significantly impairing the usefulness or desirability of the product to users” and (b) “creating equal or greater risk of harm to others.” See Mich. Comp. Laws § 600.2946(2); see also *Sylvania*, No. 275578 at * 11 (citing Mich. Comp. Laws § 600.2946(2)); *Ghrist v. Chrysler Corp.*, 451 Mich. 242, 249 (1996); *Gregory v. Cincinnati, Inc.*, 450 Mich. 1, 11-13 (1995)). Where a plaintiff fails to show each of these statutory elements, “the manufacturer or seller is not liable[.]” Mich. Comp. Laws § 600.2946(2).

The first element Plaintiffs must prove is that the Robertshaw gas control valve was “not reasonably safe” at the time it left Robertshaw’s control. Mich. Comp. Laws § 600.2946(2). This first statutory element reflects the common law for claims predicated on breach of implied warranty. See *Hershey*, 2008 Mich. App. LEXIS 1919, at *3 (finding that the first § 600.2946(2) element “is consistent with a claim predicated on implied warranty.”). As a general rule, an implied warranty claim focuses on the condition of the product. *Sundberg v. Keller Ladder*, No. 00-10117-BC, 2001

U.S. Dist. LEXIS 18390, at *15 (E.D. Mich. Nov. 8, 2001) (citing *Prentis*, 421 Mich. at 692). When alleging an implied warranty cause of action, the plaintiff must show that (1) the product in question was defective when the defendant sold or otherwise placed it in the stream of commerce, and (2) that the defect caused his injury. *Id.* at * 17 (citing *Hollister v. Dayton Hudson Corp.*, 201 F.3d 731, 737 (6th Cir. 2000)). “A product is defective if it is not reasonably fit for its intended, anticipated, or reasonably foreseeable use.” *Id.* (citing *Gregory*, 450 Mich. at 34). Even under an implied warranty theory, when causation has not been sufficiently shown, “the identification of the specific defect is required.” *Auto Club Grp. Ins. Co. v. All-Glass Aquarium Co., Inc.*, No. 08-15205, 2010 U.S. Dist. LEXIS 52051 (E.D. Mich. May 27, 2010) (emphasis added) (Ex. #17) (citing *Paquin v. Control Chief Corp.*, No. 2:06-cv-252, 2009 U.S. Dist. LEXIS 37718 at *23-24 (W.D. Mich. Apr. 29, 2009) (demonstration of specific defect required where there was more than one possible explanation for the subject product’s failure); *Istvan*, No. 08-12507 at *6 (granting summary judgment when multiple factors could have led to a motorcycle crash).

Defendants argue that Plaintiffs have not presented any evidence that the Robertshaw gas control valve was defective, i.e., not reasonably safe at the time it left Robertshaw’s control. Plaintiffs have not, and cannot, identify any physical evidence, testing, or expert literature that demonstrates that the Robertshaw gas control valve can, much less did, adhere to the seat and fail to overcome the alleged force of adhesion during the valve’s intended, anticipated, or reasonably foreseeable use. Rather, they rely only on Dr. Kasner’s opinion that the gasket could adhere to the seat and be pulled off under unspecified conditions. Dr. Kasner’s testimony, however, will be excluded.

Under Michigan law, merely because “an injury results from use of a [product] does not *ipso*

facto mean that the [product] is defective.” *Owens v. Allis-Chalmers Corp.*, 83 Mich. App. 74, 79 (1978), *aff’d* 414 Mich. 413 (1982). Indeed, “the Supreme Court [of Michigan] has repeatedly noted that manufacturers and sellers are not insurers, and they are not absolutely liable for any and all injuries sustained from the use of their products.” *TIG Ins. Co. v. Carrier Corp.*, No. 216793,2000 Mich. App. LEXIS 2179, at *6 (Mich. Ct. App. 2000).

In design defect cases, “the Michigan Supreme Court has adopted a ‘pure negligence, risk-utility test’ to determine whether a manufacturer should be held liable for a defectively designed product.” *Miller v. Ingersoll-Rand Co.*, 148 F. App’x 420, 423 (6th Cir. 2005) (citing *Prentis*, 421 Mich. at 691). The risk-utility test requires the trier of fact “to consider the alternatives and risks faced by the manufacturer in designing the product and to determine whether in light of certain factors ‘the manufacturer exercised reasonable care in making the design choices it made.’” *Croskey*, 532 F.3d at 516 (citing *Prentis*, 421 Mich. at 688). Under Michigan’s risk-utility test, a plaintiff must prove all of the following elements:

- (1) that the severity of the injury was foreseeable by the manufacturer;
- (2) that the likelihood of the occurrence of the injury was foreseeable by the manufacturer at the time of distribution of the product;
- (3) that there was a reasonable alternative design available;
- (4) that the alternative available design was practicable;
- (5) that the available and practicable reasonable alternative design would have reduced the foreseeable risk of harm posed by the defendant’s product; and
- (6) that the omission of the available and practicable reasonable alternative design rendered the defendant’s product not reasonably safe.

Id. (citing *Hollister*, 201 F.3d at 738). This is a “heavy burden” on the plaintiff. *See, Sundberg*, No. 00-10117-BC at *16; *see also Norton v. Hamilton Beach/Proctor-Silex, Inc.*, No. 2:04-cv-40376, 2009 U.S. Dist. LEXIS 27322, at *56-57 (E.D. Mich. Mar. 30, 2009).

Robertshaw does not dispute that certain feasible alternatives to the design of the *Dow* valve exist because it has produced alternative designs in years past. However, in applying the risk-utility test under Mich. Comp. Laws § 600.2946(2), it is not sufficient for a plaintiff merely to propose possible alternative feasible designs nor is it sufficient “that a plaintiff merely show that an alternative design would have reduced the risk of harm.” *Hershey*, No. 276572 at *6. Instead, a plaintiff must “prove that his or her particular injury would have been prevented by the alternative design.” *Hershey*, No. 276572 at *7. Robertshaw submits that Dr. Kasner’s report, which includes a short list of proposed design modifications, is insufficient to satisfy the burden of proof because Dr. Kasner does not have a background or experience in the design of gas control valves for residential water heaters. Dr. Kasner, as well as Woehrle, propose an alternative crimped gasket design similar to that allegedly used in a prior Robertshaw magnet assembly, but neither has established that the proposed design alternative would have prevented Plaintiffs’ injuries nor have they done any comparative testing or analysis to determine whether the alterative design would prevent the alleged adhesion of the rubber gasket to the metal seat. Plaintiffs also contend that the original Robertshaw control valve made between 1955 and 1995 did not have one incident of safety magnet seal dislodgement causing explosion but do not offer an evidentiary support for this assertion. Plaintiffs also do not offer any evidence to support their contention that the pre-1995 Robertshaw control valve would have prevented the injury that occurred in this case. The testimony of Dr. Kasner and Woehrle will be excluded, as the Court previously discussed, and Plaintiffs have

not offered any additional evidence to support their contention that a more feasible design alternative exists that would have prevented this particular injury.

Even assuming *arguendo* that Plaintiffs have proven that their proposed alternatives would have prevented their injuries, that alone cannot get Plaintiffs' claims to the jury. Not only must Plaintiffs prove that the proposed alternative design would have prevented their injuries, they must also prove that the alternative would have done so without (1) significantly impairing the usefulness or desirability of the product to users and (2) without creating equal or greater risk of harm to others. Mich. Comp. Laws § 600.2946(2). Robertshaw asserts that Plaintiffs' experts propose alternative designs without considering (1) effect the proposed change would have on the usefulness or desirability of the product or (2) whether the proposed alternative would create equal or greater risk of harm to others. With Dr. Kasner and Woehrle's testimony being excluded, and Dunn and Koch offering no opinion as to what affirmatively caused the rubber gasket to become dislodged, Plaintiffs have no admissible opinion testimony to explain what caused the gasket to dislodge. Robertshaw argues that, as a result, Dunn and Koch cannot testify as to what alternative design would prevent such dislodgment.

Indeed, there is no evidence advanced related to the potential impairment of usefulness or desirability of the product at issue, or its possible risk of harm to others. Plaintiffs generally assert that the pre-1995 Robertshaw valve was a safer design but offer no evidentiary support for their contention. As such, Plaintiffs' claims fail to satisfy the requirements of Mich. Comp. Laws § 600.2946(2), and summary judgment is appropriate. *See, e.g., Strauch v. Raymond Corp.*, No. 254224, 2005 Mich. App. LEXIS 3297, at *6 (Mich. Ct. App. Dec. 29, 2005) (finding summary disposition appropriate where plaintiff failed to establish a prima facie case of design defect because

plaintiff's expert testified that a different design would have prevented the plaintiff's injuries but failed to demonstrate that any of the suggested alternatives would be safer or would not impair the usefulness or desirability of the product).

4. Plaintiffs' Claims for Gross Negligence and Willful Disregard

Plaintiffs allege, in support of their gross negligence and willful disregard claims, that Robertshaw had actual knowledge of pilot safety valve failures on Robertshaw Control valves prior to the subject incident. Pl.'s Compl. par. 52. In particular, Plaintiffs rely on three allegedly similar incidents identified over a ten year period involving similar types of safety magnet in which a rubber seal dislodged from the safety magnet: *Bispo*; *Poirier*; and *Loy*. *Bispo* is the only other incident with a complete investigation and, in that case, Robertshaw notes that there was evidence that the water heater owner improperly connected the valve to a mobile home propane gas tank without a proper regulator, resulting in over-pressurization. Plaintiffs contend that the issue is not what caused the seal dislodgment in the other incidents, but the fact that dislodgment should not occur under any circumstance and that Robertshaw was aware of three other explosions due to seal dislodgment. Plaintiffs argue that they do not have any burden to establish the number of incidents required to create actual notice to satisfy the requirements for gross negligence and willful disregard claims; all that is required is that a defendant have actual knowledge of a product defect and that there be a substantial likelihood that the defect could cause the injury that is the basis of the action. Plaintiffs contend they have satisfied both requirements to create a genuine issue of material fact in the instant case.

As previously discussed, Robertshaw agrees with Plaintiffs' expert, Timothy Dunn, that the failure of the safety magnet valve in the *Bispo* case occurred due to misuse of the gas control valve

due to over-pressurization. The facts and circumstances of the dislodgment in the other two allegedly similar incidents, *Loy* and *Poirier*, are unestablished because formal discovery was not conducted. Robertshaw did not examine the *Poirier* valve until July 2008, a year after the incident in the instant case. ECF No. 139 Ex. #24 at 233. Robertshaw argues that no evidence of the *Poirier* matter could thus support a claim for gross negligence or willful disregard because Robertshaw lacked knowledge of the incident prior to the *Dow* explosion. To the extent the Court would find these incidents admissible, Robertshaw contends that, at best, Plaintiffs can show one prior incident, *Bispo*, that Robertshaw had knowledge of, in which Plaintiffs' own expert concluded that the rubber gasket dislodged due to misuse of the valve resulting in over-pressurization.

The two primary gas valve manufacturers in the United States, Robertshaw and White-Rodgers, use safety magnets in which the rubber seal is attached to the safety magnet in a substantially similar fashion. ECF No. 139 Ex. #25 at 178-80. Robertshaw has sold over 40 million gas control valves with the same safety magnet component at issue in the instant case. *Id.* at 216. The valve is designed and manufactured pursuant to nationally accepted standards including ANSI, and Robertshaw and its customers, such as Rheem and other water heater manufacturers, subject the gas valves to extensive quality control testing. Robertshaw contends that to accept Plaintiffs' argument, a finding would be required that the valve design used in tens of millions of water heaters throughout the United States is not only defective, but so inherently dangerous that its manufacture and sale constitutes reckless and willful conduct intended to cause harm.

Robertshaw acknowledges that Michigan state courts have generally not addressed the magnitude of other similar incidents in the context of a claim of gross negligence or willful disregard. The United States Courts of Appeals for the Sixth and Eleventh Circuits, however, have

addressed the issue. In *Clutter v. Karshner*, No. 99-4307, 2001 U.S. App. LEXIS 19094 (6th Cir. Aug. 20, 2001), the plaintiff was injured while driving a stock car when he lost control of his vehicle and left the racetrack at the third turn. Applying Ohio law, the Sixth Circuit held that the racetrack owners' conduct was not wanton because it was undisputed that the majority of incidents that had occurred at turns three and four resulted in little or no injury. Similarly, in *Richards v. Michelin Tire Corp.*, 21 F.3d 1048 (11th Cir. 1994), the plaintiff's decedent was killed when attempting to mount a tire. His death was caused by an explosion when he "mismatched" a 16-inch tire with a 16.5-inch rim. In the ensuing lawsuit, the plaintiff alleged claims of wanton design and wanton failure to warn. On appeal, the court found that evidence of four prior mismatches out of thirteen to fifteen million 16-inch tires was simply too remote to constitute a wanton failure to warn. *Id.* at 1058.

Robertshaw argues that these cases demonstrate that mere knowledge of a potentially dangerous condition alone are insufficient to create a jury question as to whether a defendant is grossly negligent or acted with wanton indifference. Instead, Robertshaw contends that the evidence of the instant case suggests that, at most, it was aware of two prior incidents of a rubber gasket dislodging from a magnet assembly out of approximately four million valves manufactured per year. The two allegedly similar incidents out of 40 million gas control valves in a ten-year period is an insufficient basis on which to hold Robertshaw liable for gross negligence and/or willful disregard and Robertshaw requests that summary judgment be granted as to these claims.

In Michigan, gross negligence in a product liability case is defined by statute as "conduct so reckless as to demonstrate a substantial lack of concern for whether injury results." Mich. Comp. Laws § 600.2945(d). "[E]vidence of ordinary negligence does not create a material question of fact concerning gross negligence. Rather, a plaintiff must adduce proof of conduct 'so reckless as to

demonstrate a substantial lack of concern for whether an injury results.’ ” *Maiden v. Rozwood*, 461 Mich. 109, 122 (1999). Defendants had knowledge of three dissimilar incidents where a water heater with a Robertshaw control valve exploded out of tens of millions of Robertshaw control valves does not equate to willful or wanton conduct that is so reckless as to “demonstrate a substantial lack of concern for whether injury results” and summary judgment on Plaintiffs’ gross negligence claim is appropriate. This is not to say that knowledge of a set number of incidents necessarily results in imposing, or not imposing, liability; indeed, there is no evidence that Robertshaw was aware of a defect resulting in a possibly dangerous component of the control valve at the time Dow’s water heater exploded.

The statutory “actual knowledge” exception for a willful disregard claim provides:

“In a product liability action, if the court determines that at the time of manufacture or distribution the defendant had actual knowledge that the product was defective and that there was a substantial likelihood that the defect would cause the injury that is the basis of the action, and the defendant willfully disregarded that knowledge and the manufacture or distribution of the product, then Sections 2946(4), 2946a, 2947(1)(2)(4), and 2948(2) do not apply.”

Mich. Comp. Laws § 600.2949A. Plaintiffs make broad claims and present evidence that they claim support their willful disregard claims. Plaintiffs fail, however, to explain how this evidence shows (1) that Robertshaw actually knew—based on the scientific, technical, or medical information reasonably available at the time its product left its control as required under Mich. Comp. Laws § 600.2948(3)—that the product was defective such that there was a substantial likelihood that the defect would cause the injuries Plaintiffs complain about here, and (2) that Robertshaw willfully disregarded that actual knowledge. The statutory “actual knowledge” exception sets a high threshold that Plaintiffs simply do not meet and summary judgment on Plaintiffs’ willful disregard claim is appropriate.

D. Rheem's Motion for Partial Summary Judgment

Rheem has also filed a motion for partial summary judgment of Plaintiffs' claims concerning Rheem's alleged "independent fault" in the instant case—fault that does not relate to the design or manufacture of the *Dow* control valve. In particular, Rheem seeks summary judgment on Plaintiffs' service department claim, Plaintiffs' claim that Rheem failed to provide adequate warnings and instructions, Plaintiffs' claim that Rheem failed to fulfill a continuing duty to warn, instruct and/or correct its water heater and/or subject control valve, Plaintiffs' claim that Rheem did not remove the water heater and/or the subject control valve from the marketplace in a timely fashion; and any claims for other conditions of defect and/or breaches that may be ascertained during discovery. Rheem contends that Plaintiffs have abandoned all but the service department claim by not disclosing any expert opinions to support these allegations, and that the time for disclosing the opinions has passed.

In negligence actions, "the duty is always the same, to conform to the legal standard of reasonable conduct in the light of the apparent risk." *Moning*, 400 Mich. at 443 (quoting Prosser, *Torts* (4th ed.), §53, p. 324). In other words, "the standard of care is always the care which a person of reasonable prudence would exercise under the circumstances as they existed." *Antcliff v. State Emp. Credit Union*, 414 Mich. 624, 631-32 (1982). Michigan requires expert testimony to assist the jury in determining the applicable standard of care where the issues presented are "not within the ken of the average lay person." *Matzinger v. Three R's Forest Products*, No. 249612, 2005 WL 473797 (Mich. Ct. App. March 1, 2005) (holding that expert testimony was required to establish the standard of care for conducting preventive maintenance inspections on a commercial vehicle); *see also Lawrenchuk v. Riverside Arena, Inc.*, 214 Mich. App. 431, 435-36 (1995) (affirming summary

disposition for defendant because plaintiff did not present expert testimony in favor of her theory that defendants' premises was negligently designed).

Rheem submits that for Plaintiffs to prevail on their service department claim, they must prove that the decision by Rheem's technical support and customer service department to send Mr. Harmon a replacement control valve was unreasonable under the circumstances. Plaintiffs have not offered any expert testimony that would assist the trier of fact in determining what is reasonable for a product manufacturer like Rheem to do "under the circumstances." Mr. Dunn's report provides no substantive opinion regarding the applicable standard of care, but provides his conclusory opinion that he is "critical of the actions taken by Rheem Technical Service Department for not meeting the standard of care." Rheem argues that what may constitute "reasonable" practice with respect to a product manufacturer's decisions to send out replacement parts and conduct its customer service operations is not within the knowledge of the average juror, and must be supported by expert testimony. This is especially true where Rheem's "decision" implicates technical issues regarding the installation and operation of liquefied petroleum gas systems.

Rheem contends that Plaintiffs' "abandoned claims" require expert testimony as to the specific standard of care applicable to a manufacturer's alleged failure to warn and postmanufacture conduct with respect to its products. Michigan Compiled Laws § 600.2948(3) provides:

In a product liability action brought against a manufacturer or seller for harm allegedly caused by a failure to provide adequate warnings or instructions, a manufacturer or seller is not liable unless the plaintiff proves that the manufacturer knew or should have known about the risk of harm based on the scientific, technical, or medical information reasonably available at the time the specific unit of the product left the control of the manufacturer.

Michigan's product liability statutes require that Plaintiffs support their claims relating to Rheem's alleged failure to provide adequate warnings or instructions with expert testimony to establish the

“scientific” or “technical” information reasonably available at the time the water heater left Rheem’s control. Plaintiffs have not provided any expert testimony on these issues and summary judgment on the “abandoned claims” is therefore appropriate.

Moreover, Plaintiffs have not offered any expert testimony to establish that Rheem’s “independent fault” was a cause-in-fact of the incident. “The cause in fact element generally requires showing that ‘but for’ the defendant’s actions, the plaintiff’s injury would not have occurred.” *Craig v. Oakwood Hosp.*, 471 Mich. 67, 86-87 (2004). A theory on cause in fact “must have some basis in established fact.” *Skinner v. Square D Co.*, 445 Mich. 153, 164 (1994).

Though “plaintiffs may show causation circumstantially, the mere happening of an unwitnessed mishap neither eliminates nor reduces a plaintiff’s duty to effectively demonstrate causation.” *Id.* at 163. To satisfy this burden, a plaintiff is required to “introduce evidence which affords a reasonable basis for the conclusion that it is more likely than not that the conduct of the defendant was a cause in fact of the result.” *Id.* at 165. “A mere possibility of such causation is not enough; and when the matter remains one of pure speculation or conjecture, or the probabilities are at best evenly balanced, it becomes the duty of the court to direct a verdict for the defendant.” *Id.* (citation omitted). In other words, there “must be substantial evidence which forms a reasonable basis for the inference of negligence. There must be more than a mere possibility that unreasonable conduct of the defendant caused the injury. We cannot permit the jury to guess” *Id.* at 166 (citation omitted).

Though not always required, expert testimony on causation is necessary, where the claim presents “technical issues that are beyond the common experience and understanding of the common juror.” *Schaendorf v. Consumers Energy Co.*, No. 281001, 2009 WL 563904, at *7-8 (Mich. Ct.

App., March 5, 2009). Plaintiffs have not offered any expert evidence indicating that Rheem's alleged independent fault caused the subject incident. Dunn Dep. 35-16, 175. Further, the average juror is not capable, without the aid of expert testimony, of determining whether Rheem's actions, through its technical support and customer service department or otherwise, were "but-for" causes of the incident. Such a determination necessarily requires an understanding of several technical issues regarding the installation, maintenance, and operation of the subject water heater, the replacement control valve, and liquefied petroleum gas systems in general. An average juror does not possess this type of specialized knowledge, and Plaintiffs have not offered any support for a cause-in-fact theory with regard to their independent fault allegations against Rheem. Similarly, Plaintiffs have not offered any expert testimony that any of the activities complained of in the "abandoned claims" had a causal connection to the explosion.

Plaintiffs conceded at the June 3, 2011, hearing that they do not contend that Rheem's independent actions are a proximate cause of the explosion. Hr'g Tr. 8-11. Plaintiffs explain that their claims against Rheem have been made because Robertshaw believes that Rheem's actions may have been a proximate cause of the explosion. Hr'g Tr. 11 ("Whether or not [the instructions furnished with the replacement control valve are] a proximate cause is the issue. There's a fight between Rheem and Robertshaw"). That Robertshaw has an alternate theory of proximate cause is insufficient to create a genuine issue of material fact regarding Plaintiffs' independent claims against Rheem. As a result, Plaintiffs' claims of independent fault against Rheem will be dismissed.

D. Dow's Claims in his February 16, 2011 Complaint are Barred by Res Judicata

After Dow's injury on July 16, 2007, his mother, Jackie Dow, filed a petition for appointment of guardian of incapacitated individual with the Tuscola County Probate Court on

August 30, 2007, stating that Dow lacked sufficient understanding or capacity to make or communicate informed decisions due to physical illness or disability. On September 18, 2007, the Tuscola County Probate Court (“Probate Court”) appointed Mrs. Dow to be Lowren’s full legal guardian and assume “care, custody, and control” of Lowren, “together with all authority and responsibilities granted and imposed by law.” 09-13697 ECF No. 132 Ex. 1. Mrs. Dow indicated in her annual report to the Probate Court on August 13, 2009 that the guardianship was still necessary and should be continued. 09-13697 ECF No. 132 Ex. 4. On February 2, 2010, Mrs. Dow petitioned the Probate Court to terminate the guardianship, stating that Lowren had regained the mental and physical faculties required to “Care for his own affairs” and “make all necessary legal decisions.” 09-13697 ECF No. 132 Ex. 5. The Probate Court granted Mrs. Dow’s petition on February 24, 2010. 09-13697 ECF No. 132 Ex. 6. On November 19, 2010, Robertshaw filed a motion to dismiss Dow’s suit for lack of capacity. 09-13697 ECF No. 132.

Dow filed a three-page response brief to Defendants’ motion to dismiss on December 3, 2010. 09-13697 ECF No. 149. Dow generally alleged that Defendants’ motion should be denied because lack of capacity is an affirmative defense that was not advanced as required in their first responsive pleading. Alternatively, Dow submitted, with little explanation and no citation to legal authority, that correcting any procedural filing deficiency should relate back to the filing of the original complaint. Dow also emphasized that he was declared incompetent because he was in an induced coma while in the hospital and his only subsequent limitation was use of his hands. Dow did not give any attention to Federal Rule of Civil Procedure 17 in his response brief.

Dow then filed a second lawsuit based on the same factual allegations and requesting relief for the same legal claims on February 16, 2011. 11-10647 ECF No. 1. On its face, the complaint was

filed outside the applicable statute of limitations period unless a tolling provision applies. Robertshaw and Rheem filed a motion to dismiss this complaint as time-barred by the applicable statute of limitations. 11-10647 ECF Nos. 10, 13. In its June 1, 2011, order, the Court noted that Federal Rule of Civil Procedure 17(a)(3) provides that the “real party in interest” may ratify an action within a reasonable time to avoid dismissal of an action for failure to prosecute in the name of the real party in interest. It was unclear at that juncture whether Dow had ratified the filing of the complaint on his behalf in case number 09-13697 under Rule 17(a). The Court ordered supplemental briefing on the question.

Dow filed a supplementary brief on June 8, 2011, 09-13697 ECF No. 210, that, as Defendants characterized it, “addresses a wide range of issues that have already been briefed.” ECF No. 211. Robertshaw’s brief was filed on June 13, 2011, and asserted that neither Dow’s nor his guardian’s ratification of the initial filing can be inferred by his later efforts “pressing his lawsuit.” ECF No. 210 at 17. Case number 11-10647 will be dismissed, however, because the claims are barred by res judicata.

Res judicata, i.e., the preclusive effect of a judgment, encompasses two distinct doctrines: claim preclusion and issue preclusion. *Taylor v. Sturgell*, 553 U.S. 880, 891-93 (2008). Claim preclusion “forecloses ‘successive litigation of the very same claim, whether or not relitigation of the claim raises the same issues as the earlier suit.’ ” *Id.* (quoting *New Hampshire v. Maine*, 532 U.S. 742, 748 (2001)); *see also Dodrill v. Lutd*, 764 F.2d 442, 443 (6th Cir. 1985). When a previous judgment upon which the defendant bases a res judicata argument was issued by a federal court on a federal question, it is necessary to look to federal law to determine the judgment’s preclusive effect. *Hamilton’s Bogarts, Inc., v. Michigan*, 501 F.3d 644, 650 (6th Cir. 2007). “Res judicata

applies when (1) there is a final decision on the merits of the first action by a court of competent jurisdiction; (2) the second action involves the same parties, or their privies, as the first; (3) the second action raises an issue actually litigated or which should have been litigated in the first action; and (4) there is identity of claims.” *Walker v. General Tel. Co.*, 25 F. App’x 332, 336 (6th Cir. 2001); *see Sanders Confectionery Prod., Inc. v. Heller Fin., Inc.*, 973 F.2d 474, 480 (6th Cir. 1992).

The Court’s summary dismissal of Plaintiffs’ claims in 09-13697 and 10-10753 is a final decision on the merits. *Nathan v. Rowan*, 651 F.2d 1223, 1226 (6th Cir. 1981) (Noting that an order granting summary judgment under Federal Rule of Civil Procedure 56 is a final decision on the merits for purposes of res judicata). Moreover, Dow’s second lawsuit involves identical parties and identical claims to those in his first lawsuit and are barred by res judicata.

V

Accordingly, it is **ORDERED** that Defendants’ motion to exclude the testimony of Alan Kasner (09-13697 ECF No. 134; 10-10753 ECF No. 38) is **GRANTED**.

It is further **ORDERED** that Defendants’ motion to exclude the testimony of William Woehrle (09-13697 ECF No. 137; 10-10753 ECF No. 41) is **GRANTED**.

It is further **ORDERED** that Defendants’ motion for summary judgment (09-13697 ECF No. 139; 10-10753 ECF No. 43) is **GRANTED**. Rheem’s motion for leave to join in Robertshaw’s motion for summary judgment (09-13697 ECF No. 141; 10-10753 ECF No. 45) is also **GRANTED**.

It is further **ORDERED** that Rheem’s motion for partial summary judgment (09-13697 ECF No. 117; 10-10753 ECF No. 33) is **GRANTED**.

It is further **ORDERED** that Plaintiffs’ claims in case numbers 09-13697 and 10-10753 are **DISMISSED WITH PREJUDICE**.

It is further **ORDERED** that Dow's claims in case number 11-10647 are **DISMISSED WITH PREJUDICE.**

It is further **ORDERED** that the remaining pending motions in case number 09-13697 (ECF Nos. 83, 85, 87, 114, 115, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 173, 179, 180, 190, 205, 206) are **DENIED AS MOOT.**

It is further **ORDERED** that the remaining pending motions in case number 10-10753 (ECF Nos. 23, 24, 30, 36, 37, 55, 56, 63) are **DENIED AS MOOT.**

It is further **ORDERED** that Defendants' motion to dismiss (11-10647 ECF No. 10) is **DENIED AS MOOT.**

This resolves all pending issues and closes the cases.

s/Thomas L. Ludington
THOMAS L. LUDINGTON
United States District Judge

Dated: September 26, 2011

PROOF OF SERVICE

The undersigned certifies that a copy of the foregoing order was served upon each attorney or party of record herein by electronic means or first class U.S. mail on September 26, 2011.

s/Tracy A. Jacobs
TRACY A. JACOBS